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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,454	07/24/2001	Jan Robert van Smirren	019929.0144	4455

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EXAMINER	
LE, TOAN M	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/912,454	SMIRREN ET AL.	
	Examiner	Art Unit	
	Toan M Le	2863	MW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/16/03 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by "System Development for Profiling Deeper Waters in Support of the Oil and Gas Industry", Romeo et al. (Referred hereafter Romeo et al.).

Referring to claim 1, Romeo et al. disclose a water measuring system (page 1, Abstract: 1st paragraph) comprising: an ROV, the ROV being operable to move in a vertical direction in a water column and to collect data while moving in the vertical direction in a water column (page 1, 1st column-2nd column, Introduction section: 2nd paragraph; page 8, 1st column, Software section: 1st paragraph); an ADCP coupled to the ROV, the ADCP being operable to move in a vertical direction in a water column and to collect data while moving in the vertical direction in a

water column (page 1, 1st column-2nd column, Introduction section: 2nd paragraph ; page 1, 2nd column, System Description section: 1st paragraph, figures 2 and 14); and a computer system for receiving and processing the collected ADCP data and the collected ROV data (page 1, 1st column-2nd column, Introduction section: 2nd paragraph; page 1, 2nd column, System Description section: 2nd and 3rd paragraphs) and displaying processed data in real time as the ADCP and ROV are moving in the vertical direction through a water column , wherein the processed data includes depth and heading data from the ADCP data if such depth and heading data is of a sufficient quality (page 1, Abstract: 3rd paragraph; page 8, Software section: 1st paragraph).

As to claims 2-3, Romeo et al. disclose a water measuring system, wherein the face of the current profiler on which its acoustic transducers are attached is downward-facing and upward-facing (page 2, 2nd column, Possible section: 3rd paragraph).

Referring to claim 4, Romeo et al. disclose a water measuring system, wherein the system is used to measure water currents in a deep-sea water column (page 3, 1st column, Operating Environment section: 1st, 2nd, and 3rd paragraphs).

As to claim 5, Romeo et al. disclose a water measuring system, wherein the deep-sea water column is adjacent to a drilling and/or production riser used in drilling for oil, gas, or other substances (figure 2).

Referring to claim 6, Romeo et al. disclose a water measuring system, wherein the ADCP is shrouded (page 4, 1st column, lines 39-44).

As to claim 7, Romeo et al. disclose a water measuring system, further comprising a shroud coupled to and covering the ADCP and including an opening for the transmission and receipt of signals by the transducers of the ADCP (page 4, 1st column, lines 39-44).

Referring to claim 8, Romeo et al. disclose a method for processing water measurements in real time (page 1, Abstract), comprising the steps of: receiving depth and heading data from an ROV as the ROV is moving in the vertical direction through a water column, the data being representative of and associated with a depth cell of the water column being traversed by the ROV (page 8, 1st column, Software section: 1st paragraph); receiving from an ADCP as the ADCP is moving in the vertical direction through a water column water current velocity, the data being representative of and associated with a depth cell of a water column being traversed by the ADCP (page 8, 1st column, Software section: 1st and 2nd paragraphs); receiving depth and heading data from the ADCP if the depth and heading data of the ADCP is substantially free of interference (page 8, 1st column, Software section: 1st paragraph); processing the current velocity data from each depth cell into data associated absolute depth; assigning absolute depth data to virtual bins; processing the data for each bin; and outputting the data at a regular interval (page 5, 1st column, Data Collection/Performance section: 3rd paragraph, figures 6-13).

As to claims 9-10, Romeo et al. disclose a method for processing water measurements in real time, further comprising the step of storing the depth and heading data received from the ROV or the ADCP and the current velocity data at a second regular time interval (figures 6-13).

Referring to claim 11, Romeo et al. disclose a method for processing water measurements in real time, further comprising the step of manually stopping the gathering of data by the current profiler (page 3, 1st column, 1st paragraph).

As to claim 12, Romeo et al. disclose a method for processing water measurements in real time, further comprising the step of storing the processed data for each bin (page 5, 1st column, Data Collection/Performance section: 3rd paragraph).

Referring to claims 13-14, Romeo et al. disclose a method for processing water measurements in real time, wherein the current profiler is rigidly attached to the ROV (figures 2 and 14); and wherein the face of the current profiler on which its acoustic transducers are attached is downward-facing and upward-facing (page 2, 2nd column, Possible section: 3rd paragraph).

As to claim 15, Romeo et al. disclose a method for processing water measurements in real time, wherein the step of outputting the data at a regular interval comprises the step of providing a graphical display of the processed data (page 9, 2nd column, lines 1-4; figure 16).

Referring to claim 16, Romeo et al. disclose a method for measuring water currents in real time, comprising the step of receiving and processing data in real time from an ADCP, including depth and heading data, as the ADCP is moving in the vertical direction through a water column, the data from the ADCP being associated with and representative of a depth cell in the water column being traversed by the ADCP (page 1, Abstract; 1st column, Introduction section: 2nd paragraph; page 8, 1st column, Software section: 1st paragraph).

As to claim 17, Romeo et al. disclose a method for processing water measurements in real time, wherein the ADCP is coupled to an ROV (figures 2 and 14).

Referring to claim 18, Romeo et al. disclose a method for processing water measurements in real time wherein the data is received and processed at a computer system remote from the ADCP (page 9, 1st column, 3rd and 4th paragraphs).

As to claim 19, Romeo et al. disclose a method for processing water measurements in real time wherein the step of processing the data comprises the step of converting data from the

frame of reference of the ADCP to a fixed frame of reference (page 9, 2nd column, 1st paragraph; figure 16).

Referring to claim 20, Romeo et al. discloses a method for processing water measurements in real time, wherein the data is received and processed at a computer system remote from the ADCP (page 9, 1st column, 3rd and 4th paragraphs); and wherein the step of processing the data comprises the step of converting data from the frame of reference of the ADCP to a fixed frame of reference (page 9, 2nd column, 1st paragraph, figure 16).

As to claim 21, Romeo et al. disclose a method for processing water measurements in real time, wherein the data received by the computer system for processing included data indicative of the water current velocity in the profiling range of the ADCP (figures 6-13).

Referring to claim 22, Romeo et al. disclose a method for processing water measurements in real time, wherein the data received by the computer system for processing includes data indicative of the water current heading in the vicinity of the ADCP (page 1, 2nd column, last paragraph).

As to claim 23, Romeo et al. disclose a method for processing water measurements in real time, further comprising the step of presenting a graphical display of the water current velocity through the water column (page 9, 2nd column, 1st paragraph, figure 16).

Remarks:

Response to Arguments

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,077,700 to Shaw et al. U.S. Patent No. 6,052,334 to Brumley et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M Le whose telephone number is (703) 305-4016. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.

Toan Le

November 5, 2003

John Barlow
Supervisory Patent Examiner
Technology Center 2800